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Rodric C. Fan

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EXAMINER

TESLOVICH, TAMARA

ART UNIT

PAPER NUMBER

2437

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/927,928	<b>Applicant(s)</b> FAN ET AL.	
	<b>Examiner</b> Tamara Teslovich	<b>Art Unit</b> 2437	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,9-11,16,17,20,25-27,29-33 and 35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,9-11,16,17,20,25-27,29-33 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This Office Action is in response to Applicant's remarks and amendments filed February 22, 2010.

Claims 1-4, 6, 9-11, 16-17, 20, 25-27, 29-33 and 35 are pending and herein considered.

#### ***Response to Arguments***

Applicant's remarks concerning the Examiner's previously set forth 35 USC 112 rejections have been considered and are persuasive. Accordingly, those rejections are withdrawn.

Applicant's arguments with respect to claims 1-4, 6, 9-11, 16-17, 20, 25-27, 29-33 and 35 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of 35 USC 103(a).

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner is confused as whether Applicant's "a wireless

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device” is in fact the same as Applicant’s “a mobile device” and as such the former of the two should have been removed at the time the latter was added to the claim (see claim 1 “a first transmission from a wireless device by said mobile device”).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-4, 6, 9-11, 16-17, 20, 25-27, 29-33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6,055,314 to Spies, and further in view of United States Patent No. 6,501,767 B1 to Inoue et al.**

As per **claim 1**, Spies teaches a method for transmitting secured data over a wireless link, the method comprising:

utilizing a first key (“program key”) to encrypt a payload (col.5 lines 10-24) by a device;

adding a header to the encrypted payload to form a data packet (col.9 lines 40-60), by said device;

utilizing a second key to encrypt the first key (col.5 lines 35-53) by said device;

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utilizing a third key to encrypt the data packet (col.9 lines 40-60) by said device;

transmitting the encrypted first key separate from the encrypted data packet to a wireline device in a first transmission by said device, wherein the wireline device decrypts the encrypted first key (col.3 lines 5-35; col.5 lines 35-53; col.8 lines 26-41); and

transmitting only the encrypted data packet without said first key over a wireless link to a gateway in a second transmission from the wireless device, wherein the gateway decrypts the encrypted data packet to recreate the encrypted payload and the header, and forwards the encrypted payload and the header to the wireline device over an open network (col.3 lines 36-50); and

utilizing the wireline device and the first key from the first transmission to decrypt the encrypted payload (col.10 lines 49-56).

Spies fails to particularly disclose wherein the device is a mobile device and wherein the payload comprises the GPS location of said mobile device.

Inoue describes a mobile IP communication scheme for supporting mobile computers moving over different address spaces including the transmission of packets from mobile devices consisting of encrypted payloads containing location information whereby a header has been appended to the encrypted payload to form a data packet for transmission (col.3 line 59 thru col.4 line 8 and col.9 lines 1-9).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within Spies the mobile devices and location information

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as described in Inoue to provide for the expanded use of mobile devices without compromising security.

As per **claim 2**, Spies teaches wherein the first key comprises a symmetric key (col.6 line 59 thru col.7 line 67; col.10 lines 57-67).

As per **claim 3**, Spies teaches transmitting the encrypted first key to the wireline device, wherein the wireline device decrypts the encrypted first key using a private key associated with the second key (col.6 line 59 thru col.7 line 67; col.10 lines 57-67).

As per **claim 4**, Spies teaches wherein the third key comprises a symmetric session key (col.6 line 59 thru col.7 line 67; col.10 lines 57-67).

As per **claim 6**, Spies teaches a device for transmitting secured data over a wireless link, the device comprising:

an encryption engine which generates a first key, encrypts a payload according to the first key (col.5 lines 10-24), adds a header to the encrypted payload to form a data packet (col.9 lines 40-60), encrypts the first key according to a second key (col.5 lines 35-53) and encrypts the data packet according to a third key (col.9 lines 40-60);  
and

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a wireless transceiver coupled to the encryption engine, the wireless transceiver transmitting the encrypted first key separate from the encrypted data packet to a server in a first transmission from the device (col.3 lines 5-35; col.5 lines 35-53; col.8 lines 26-41) and transmitting only the encrypted data packet without said first key over the wireless link to a gateway in a second transmission from the device, wherein the gateway decrypts the encrypted data packet to recreate the encrypted payload and the header, and forwards the encrypted payload and the header to the server over an open network (col.3 lines 36-50);

wherein the server decrypts the encrypted first key received in the first transmission and decrypts the encrypted payload of the second transmission using the decrypted first key (col.10 lines 49-56).

Spies fails to particularly disclose the use of mobile devices and wherein a payload comprises location information regarding the geographical location of said devices.

Inoue describes a mobile IP communication scheme for supporting mobile computers moving over different address spaces including the transmission of packets from mobile devices consisting of encrypted payloads containing current location information whereby a header has been appended to the encrypted payload to form a data packet for transmission (col.3 line 59 thru col.4 line 8 and col.9 lines 1-9).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within Spies the mobile devices and location information

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as described in Inoue to provide for the expanded use of mobile devices without compromising security.

As per **claim 8**, Spies teaches wherein the first key employs a symmetric key (col.6 line 59 thru col.7 line 67; col.10 lines 57-67)

As per **claim 9**, Spies teaches wherein the payload comprises GPS location information obtained by the device and regarding a geographical location of the device (col.11 lines 40-60).

As per **claim 10**, Spies teaches a method for secured communication between a device and a server on a wide area network, the method comprising:

encrypting a payload at the device using a first session key (col.5 lines 10-24);  
encrypting the first session key at the device using a public key (col.5 lines 35-53);

transmitting the encrypted first session key separate from the an encrypted data packet to the server over a link in a first transmission from the mobile device (col.3 lines 5-35; col.5 lines 35-53; col.8 lines 26-41);

decrypting the encrypted first session key at the server (col.10 lines 49-56);  
adding a header to the encrypted payload to form a data packet at the device (col.9 lines 40-60);



encrypting the data packet according to a second session key configured for secured communications over the wireless link (col.9 lines 40-60); and

transmitting only the encrypted data packet without said first key in a second transmission from the device to a gateway which decrypts the encrypted data packet to recreate the encrypted payload and the header, and forwards the encrypted payload and the header to the server (col.3 lines 36-50);

wherein the server utilizes the decrypted first session key, decrypted from the first transmission to decrypt the encrypted payload (col.10 lines 49-56).

Spies fails to particularly disclose the use of mobile devices and wherein a payload comprises location information regarding the geographical location of said devices.

Inoue describes a mobile IP communication scheme for supporting mobile computers moving over different address spaces including the transmission of packets from mobile devices consisting of encrypted payloads containing current location information whereby a header has been appended to the encrypted payload to form a data packet for transmission (col.3 line 59 thru col.4 line 8 and col.9 lines 1-9).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within Spies the mobile devices and location information as described in Inoue to provide for the expanded use of mobile devices without compromising security.

As per **claim 11**, Spies teaches wherein the decrypting the encrypted first session key at the server further comprises:  
decrypting the encrypted first session key at the server using a private key associated with the public key (col.7-col.8).

As per **claim 16**, Spies teaches generating the first session key at the device based on a random number (col.7-col.8; col.10).

As per **claim 17**, Spies teaches wherein the encrypting the payload at the device using the first session key further comprises encrypting the payload at the device using the first session key, wherein the first session key employs an encryption algorithm selected from a group of the encryption algorithms consisting of DESX and DES (col.7 lines 41-55).

As per **claim 20**, Spies teaches implementing an encryption algorithm selected from a group of encryption algorithms consisting of DESX and DES (col.7 lines 41-55).

As per **claim 25**, Spies teaches wherein the payload includes GPS location information obtained by the wireless device and associated with a geographical location of the wireless device (col.11 lines 40-60).

As per **claim 26**, Spies teaches utilizing a random number to generate the first key (col.7-col.8; col.10).

As per **claim 27**, Spies teaches a memory coupled to the encryption engine, wherein the memory stores the second key, and wherein the encryption engine accesses the second key from the memory (col.10).

As per **claim 29**, Spies teaches a computer readable storage medium, comprising program instruction for performing a method comprising:

encrypting a payload according to a first key (col.5 lines 10-24);  
adding a header to the encrypted payload to form a data packet (col.9 lines 40-60);

encrypting the first key according to a second key (col.5 lines 35-53);  
encrypting the data packet according to a third key configured for secured communications over a wireless link (col.9 lines 40-60);

transmitting the encrypted first key separate from the encrypted data packet to a server in a first transmission from a device (col.3 lines 5-35; col.5 lines 35-53; col.8 lines 26-41); and

transmitting only the encrypted data packet without said first key over the link to a gateway in a second transmission from the device (col.3 lines 36-50), wherein the gateway decrypts the encrypted data packet to recreate the encrypted payload and the header and forwards the encrypted payload and the header to the server and wherein

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the server decrypts the encrypted first key received in the first transmission and decrypts the encrypted payload using the decrypted first key (col.10 lines 49-56).

Spies fails to particularly disclose the use of mobile devices wherein a payload comprises location information regarding the geographical location of said devices.

Inoue describes a mobile IP communication scheme for supporting mobile computers moving over different address spaces including the transmission of packets from mobile devices consisting of encrypted payloads containing current location information whereby a header has been appended to the encrypted payload to form a data packet for transmission (col.3 line 59 thru col.4 line 8 and col.9 lines 1-9).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within Spies the mobile devices and location information as described in Inoue to provide for the expanded use of mobile devices without compromising security.

As per **claim 30**, Spies teaches wherein the first key comprises a symmetric key (col.6 line 59 thru col.7 line 67; col.10 lines 57-67; col.15 lines 43-57).

As per **claim 31**, Spies teaches  
receiving the data packet at the gateway (col.8 lines 44-57);  
decrypting the data packet at the gateway according to the third key (col.8 lines 44-57);

forwarding the encrypted payload to the server and receiving the encrypted first key at the server (col.15 lines 43-57);

decrypting the encrypted first key using a fourth key and decrypting the payload according to the decrypted first key (col.12 line 61 thru col.13 line 8; col.15 lines 43-57).

As per **claim 32**, Spies teaches wherein the first session key comprises a symmetric session key (col.6 line 59 thru col.7 line 67; col.10 lines 57-67; col.15 lines 43-57).

As per **claim 33**, Spies teaches implementing an encryption algorithm selected from a group of encryption algorithms consisting of DESX and DES (col.7 lines 41-55)).

As per **claim 35**, Spies teaches wherein the symmetric session key is generated based on a random number (col.7-col.8; col.10).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara Teslovich whose telephone number is (571) 272-4241. The examiner can normally be reached on Mon-Fri 8-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tamara Teslovich/  
Examiner, Art Unit 2437

/Emmanuel L. Moise/  
Supervisory Patent Examiner, Art Unit 2437